Date: Sat, 28 May 94 04:30:23 PDT
From: Ham-Homebrew Mailing List and Newsgroup <ham-homebrew@ucsd.edu>
Errors-To: Ham-Homebrew-Errors@UCSD.Edu
Reply-To: Ham-Homebrew@UCSD.Edu
Precedence: Bulk
Subject: Ham-Homebrew Digest V94 #143
To: Ham-Homebrew

Ham-Homebrew Digest Sat, 28 May 94 Volume 94 : Issue 143

Today's Topics:

Send Replies or notes for publication to: <Ham-Homebrew@UCSD.Edu>
Send subscription requests to: <Ham-Homebrew-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Homebrew Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/ham-homebrew".

Date: 27 May 1994 13:54:41 GMT
From: ihnp4.ucsd.edu!pacbell.com!ohlone.kn.PacBell.COM!jlundgre@network.ucsd.edu
Subject: How can I reduce RFI from flourescent lights?
To: ham-homebrew@ucsd.edu

Pete Rossi (rossi@VFL.Paramax.COM) wrote:
: In article <philkeys-260594075020@ptpm004.olympus.net> philkeys@olympus.net
(Phil Keys) writes:
: >I have a beach cabin with solar panels & batteries for
: >power. I use 12VDC flourescent lights in each room
: >(made by REC Industries) with electronic ballasts.
: >When the lights are turned on I get all kinds of squeals
: >in the AM & SW bands. The 12 V negative line common to
: > the solar panels & battery is grounded with a 10 foot
: >ground rod (but driven into dry sand).
: >

: >Any ideas how to quiet these lights? Now I have to
: >turn them off to use the radio.

: That's why you need those tube radios that "glow in the dark" ;-)

: [sorry I couldn't resist]

: ==
: Pete Rossi - WA3NNA   rossi@vfl.paramax.COM

: Unisys Corporation - Government Systems Group
: Valley Forge Engineering Center - Paoli, Pennsylvania
: ==

What you might do is go out scavenging the ferrite loopsticks from old AM
radios. Then wind a couple dozen turns of zip cord on them and tape them
up. Connect the incoming line to one side, and the fluorescent light
fixture to the other. It should reduce the RFI somewhat.

  But it depends on how close the receiver is to the fixtures. If the
fixtures themselves are radiating, then the only thing to do is replace
them with an incandescent lamp, or something similar. Maybe Kerosene?

Maybe a few capacitors across the incoming wires in each fixture might
help.

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@   Voice (714) JOHN GAB \ FAX (714) JOHN FRY   @   @
@ jlundgre@pop.rancho.cc.ca.us\jlundgr@eis.calstate.edu @   @
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Date: 27 May 1994 15:23:32 GMT
From: ihnp4.ucsd.edu!pacbell.com!ohlone.kn.PacBell.COM!jlundgre@network.ucsd.edu
Subject: Is there a cheap A/D package with serial ASCII output?
To: ham-homebrew@ucsd.edu

John Ackermann (jra@lawdept.daytonOH.ncr.com) wrote:
: Does anyone know of an inexpensive A/D that outputs a serial data stream? If
: that's not available, what would be the simplest microcontroller board that
: could do this?

: I have a piece of test equipment with a chart recorder output (0 to 1 ma).

: I'd like to sample once per second and store the data in an ascii file on a
: computer. I have plenty of spare serial ports, but no slots available to add
: a pc bus D/A board.

: Thanks...

: John Ackermann   AG9V
: jra@lawdept.daytonOH.ncr.com

Another way to get it into your PC is through the game port (what? you don't have one??). The 15 pin port on the multi I/O cards.

THe joystick has a resistor that's something like 150K total, and is about half that when the joystick is in the middle. All you have to do is get a CdS photocell and put it in place of the joystick resistor.

THere is a command in BASIC to read the joystick, and at the speed you're looking for, it doesn't seem to be a problem. One sample per second or so seems really easy to keep up with.

The 0-1mA from the chart recorder could go into a single transistor which then drives an LED which is glued to the photocell. Of course, you should use black silicon glue to keep out ambient light. The chart recorder might drive the LED bright enough without any amplifier.

Best of success.
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Date: 27 May 1994 15:10:14 GMT
From: ihnp4.ucsd.edu!pacbell.com!ohlone.kn.PacBell.COM!jlundgre@network.ucsd.edu
Subject: Modification of walkie talkies..
To: ham-homebrew@ucsd.edu

sebelt01@starbase.spd.louisville.edu wrote:

:   I want to modify a pair of (cheap) walkie talkies to have greater range. I
: have three things in mind:

: 1 - Improve the antenna: 49.860 / 468 = 9.4 ft. Will a 9.4 ft length of wire

: do the trick? What gauge is _best_?

The FCC walkie-talkie rules used to say that the antenna was limited to 1
meter to be legal.

: 2 - Get rid of some resistors. It seems that there is a resistor right
: between a very small coil and the antenna. I'm not sure of it's purpose (does
: it just reduce the output power, or limit interference, or protect something
: in the transceiver? The resistor is labeled L2, with the coil before it
: labeled L1. (Which makes me thing it has somethign to do with tuning or
: interference).. If I remove this will my signal become stronger? (where I'm
: using these interference will be virtually no problem).

The L stands for inductor. It's probably for matching the short antenna
to the output stage. Also, it's probably a low pass filter, to reduce
harmonics.

: 3 - Add an amplifier. How hard is it to amplify the signal? Is it just a
: matter of adding on a resistor, or is such a circuit more comples. Again,
I'm
: not too worried about causing interference where these transceivers will be
: used, but I need to make them as powerful as possible.

The usual walkie-talkie is a single stage with the crystal and antenna
all connected. Cheap. But you could build another stage and put it
between the antenna and existing stage. You would have to find somewhere
to put it inside the radio, though.

Some people have reduced the resistors in the existing transmit stage to
get a little more power. But in doing this, it sometimes adds power to
the harmonics, and not to the frequency you want, the fundamental.
Another thing that's a problem is the reduced battery life. The battery
is just too small in these walkie-talkies.

: Thanks for any help/suggestions/whatever. Please respond by mail if at all
: possible, I will post a summary in the form of a how-to, if I can get this to
: work.

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Date: 27 May 1994 14:08:14 GMT
From: ihnp4.ucsd.edu!pacbell.com!ohlone.kn.PacBell.COM!jlundgre@network.ucsd.edu
Subject: Need help on inductor winding
To: ham-homebrew@ucsd.edu

white@ccsua.ctstateu.edu wrote:

: I'm building the RadioKit QRP-20 kit. The manual calls for inductors
: with "2-T links"..... what does that mean? Does it mean a 2-turn
: secondary? Thanks, and if anyone has info on winding inductors (esp.
: the oddball subminiature inductor for the 7MHz Optimized Transceiver),
: I would appreciate a lead on where to find it.
: 73 de N1QVE
: Harry

You didn't give much info on what inductor, or where it was in the circuit. You guessed about right. 2 turn links from one tank to another sound about right.

Remember that some of the projects have been purposely made with components that are hard to come up with except by buying them from the project author. Some authors sell just a circuit board, and also the hard-to-get parts. After all, they want to make money, even without too many scruples. THey figure the buyer will be back for the hard to get/make parts.

  Remember, the first rule of project building is to get _all_ the parts first. Right there... In your hand. Then you can start assembling.

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Date: 27 May 1994 14:59:36 GMT
From: ihnp4.ucsd.edu!pacbell.com!ohlone.kn.PacBell.COM!jlundgre@network.ucsd.edu
Subject: Proper way to bias a tunnel diode?
To: ham-homebrew@ucsd.edu

Dave Jacob (jacob@altair.csustan.edu) wrote:

: know tunnel diodes are an extinct species, hence the trouble
: I am having locating circuits for them, but does anyone out there
: know how to bias these little demons so that they remain stable?
: I need to bias them at 0.15 volt, so that after applying a
: 0.05 volt modulating voltage they remain near their peak tunnel
: current, without strange things happening.

: Any help appreciated.
: Dave.

I'm checking the GE Transistor Manual, Rev 7th Ed, Chap 14. They show a
10 to 22 ohm resistor to ground from the TD cathode lead. This resistor
must be less than the TD negative resistance. Also from the same lead, a
250 ohm pot (wiper arm connected to one end) in series with a ten ohm
resistor which goes to a 1.5 volt cell.

  Most schematics are using the 1N3712. They show several converters
which seem simple in design. With cavities these TDs can go up to
several GHz or more.

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Date: Fri, 27 May 1994 15:12:59 GMT
From: ihnp4.ucsd.edu!swrinde!emory!europa.eng.gtefsd.com!library.ucla.edu!agate!
spool.mu.edu!torn!watserv2.uwaterloo.ca!watserv1!
SPIKE%EESTAFF.watstar.uwaterloo.ca@network.ucsd.edu
Subject: rec.radio.amateur.homebrew
To: ham-homebrew@ucsd.edu

In article <1994May25.132615.1@eivax.ualr.edu> you write:
>From: heiss@ualr.edu
>Subject: rec.radio.amateur.homebrew
>Date: 25 May 94 13:26:15 CST
edited >--
>In article <2rselg$d9g@anshar.shadow.net>, keogh@anshar.shadow.net (Matt Keogh)
writes:
>>   *** THIGH CREAM ***
edited >--

>How can we stop stuff like this? I know it is probably not illegal but it
>should be.
>***
>Larry Heiss
>University of Arkansas @ Little Rock
>Laser Applications Lab
>e-mail heiss@ualr.edu
>KC5CVL
>************************************
Some of this type of activities has been filtered at our sight!
Maybe the access for this person could be shut off!

73, de EDward Spike   spike@eestaff.watstar.uwaterloo.ca
          *
       *   AMATEUR RADIO: ve3tck@at.ve3uow.ampr.org
    *   or   VE3TCK@VE3UOW.#SWON.ON.CA.NA
   *- - - -/   IEEE Robotic Olympics and MicroMouse Competition Committee
    *   micro-mouse@ieee.org or mouse@sunee.uwaterloo.ca
       *   E & CE Dept. University of Waterloo, Waterloo, Ontario,
          *   Canada, N2L3G1.   (519)888-4567, X-3716, fax:(519)888-6197
==

Date: 27 May 1994 15:13:02 GMT
From: ihnp4.ucsd.edu!pacbell.com!ohlone.kn.PacBell.COM!jlundgre@network.ucsd.edu
Subject: TV Xtal? filters
To: ham-homebrew@ucsd.edu

Dirk-Jan Agterkamp (I89) (agterkam@fwi.uva.nl) wrote:
: Can someone tell me more about 38.9 MHz TV-IF XTAL filters.

: I presume these are XTAL filters ?

:   OFW 361   (Siemens)
:   SW 170   (PLessey)

: What are there specs ? Fo, BW, etc.

: Chears, Dirk.

They are probably SAW or surface acoustic wave filters. Just especially
for TV IF circuits. Probably wide bandwidth, too. You should contact
the makers for product information.

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End of Ham-Homebrew Digest V94 #143
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